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ABSTRACT

Content area teachers interested in using writing to learn activities need to be well informed about the learning promoted by certain writing tasks before assigning them. Writing assignments should not be thoughtlessly and arbitrarily assigned with the expectation that learning, somewhat miraculously or mysteriously, will occur. Although writing assignments that can promote learning are probably as abundant as the kinds of learning that are possible in a classroom, many concur that effective writing to learn assignments are those which the instructor designs to match particular learning objectives in the class. To develop effective writing assignments the teacher would do well to consider Benjamin Bloom's "Taxonomy of Educational Objectives." Writing seems to be particularly well-suited to meet objectives at the higher levels of the cognitive domains, such as analysis, synthesis, and evaluation, that is, the ones that require critical thinking. Since much of the material to be learned in content courses comes from books, writing tasks that demand interaction with a reading text would seem easily applied in any classroom. Some studies suggest that working on projects unique to a discipline is a way to foster learning in that content area. Other research indicates that summary writing demands more than simple recall skills from students. Differentiating between major points and supporting details in a text and combining the condensed material into a new form force the student to analyze, evaluate, and synthesize the material he or she reads. (Contains 33 references.) (NH)

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Writing to Learn Activities in Writing Across the Curriculum Classrooms

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Writing to Learn Activities in

the Writing Across the Curriculum Classroom

The idea that writing can promote learning is one of the major selling points for Writing Across the Curriculum programs. Kinneavy (cited in Tate, 1987) points out the importance of Janet Emig's (1977) article "Writing as a Mode of Learning" in outlining the theoretical foundations of Writing Across the Curriculum (WAC). Bannister (1990) asserts that "the phenomenon of Writing Across the Curriculum has its roots in a writing as learning philosophy" (p. 11). If writing does indeed promote learning, then content area teachers would have good reason to buy into a WAC program; they could view writing activities as ones which promote learning of their course content, not as irrelevant tasks that belong in English classes. The idea seems to be catching on. Gage (cited in Schumacher & Nash, 1991, p. 8) states, "There is no question that students should write . . . . It seems inconceivable that any suggestion to have students write less be taken seriously, so powerful is the current belief that composing lies at the center of learning."

That writing promotes learning seems so intuitively true that there might be no point to debating it. "Writing to learn" seems a simplistic enough phrase, as self-evident as "Eating to live," my own invention. While there may be no challenge to my assertion that eating promotes living, the phrase begs fine-tuning, modification. Eating anything does not promote life; eating arsenic or lead paint might even cancel life. And then there are some foodstuffs that, while not terminating one's life, could add or detract to its quality. Obviously, one is the arbiter of the quality of his or her own life. While an all-doughnut diet might be one person's idea of a perfect existence, it might

be anathema to a person fond of wheat grass and whole grains. Thus, while eating does promote life, choosing the right foods can determine the quality of life one might lead. It all depends what one wants out of life.

So it is with writing to learn activities. The rush to embrace writing activities in the classroom suggested by Gage might lead to the erroneous belief that any kind of writing can promote learning. If that were the case, then Applebee's (1981) report that 44% of lesson time in the 259 secondary school classrooms he observed was devoted to writing activities might be reason to celebrate. So much writing in so many classrooms, and this was before WAC programs started sweeping across the country! Instead, his report was cause for alarm. Almost all of those writing activities involved taking down notes or filling in blanks or short answers on worksheets. Only 3% of it was at least as long as a paragraph, and less than .5% involved personal and creative writing, the kind espoused by Britton (1970) as so essential for promoting thinking and understanding. This is not to say that taking notes and providing short answers on worksheets are worthless endeavors. They might promote a certain kind of learning, but to utilize those writing activities to the exclusion of all others, would qualify as a gross underutilization of a very dynamic and powerful learning tool.

Content area teachers interested in using writing to learn activities in their classrooms need to be well informed about the learning promoted by certain writing tasks before assigning them. Leopold and Jenkinson (1988) in their survey of content area teachers implementing WAC programs in their schools found that many of them are "reluctant to incorporate more learning into their classes unless they are absolutely convinced that the writing can help their students learn the subject matter" (p. 741).

That's a problem because in the journal articles about writing to learn activities, the idea of being "convinced" that certain writing tasks promote learning is more relative than absolute. Consumers of research are often forced to weigh an article's claims more on the basis of what seems intuitively right---a necessary risk, perhaps, given the nature of the epistemology---than what is empirically undeniable.

Many journals are hard pressed to find empirical data that might support the claim that writing to learn activities promote learning. Sorenson (1991) says " . . . hard statistical evidence is scarce" (p. 2). Anson and Beach (1990) report, " Almost none of what we found [in reviewing the literature on writing to learn] tried to support empirically what it overwhelmingly endorsed in practice" (p. 1). Langer and Applebee (1987) state, "Although we ourselves have enthusiastically advocated writing across the curriculum and related reforms, we have found no convincing research base for these programs" (p. 5). Russell (1991) claims, "Research into writing and learning in the disciplines has not yet formulated an analysis of the ways in which writing can be meaningfully integrated into discipline-specific learning activities to produce increasingly more sophisticated levels of understanding and writing performance" (p. 281).

This is not to say that no one is attempting empirical research into the effectiveness of writing to learn activities; it's just that the results are often contradictory or misleading. For example, while Penrose (1987) found that studying a text is a more effective learning technique than writing an essay about the text on a measure of factual recall and application of the text's content, Marshall (cited in Schumacher & Nash, 1991) found essay writing to be more effective than answering study guide

questions on a measure that required paragraph-length answers. Anson and Beach (1990) found that students whose academic journals were judged to be the best by their teacher were more likely to apply what they learned in their journals and to write longer, more elaborate entries than other students. They also found little relation between good journal ratings and success on objective tests.

One major criticism of such empirical studies is the way which they assess learning after a writing activity has been introduced. Penrose (1987), in explaining a writing task's inability to promote better scores than a studying task on an objective test, proposes, "Much, perhaps most, of what writing can do for us as a learning tool is not easily described or assessed" (p. 15). Anson and Beach (1990) claim if journals are truly successful at encouraging a kind of open-ended inquiry, then perhaps an essay test is a better measure than an objective multiple choice test of the kind of learning they promote. Schumacher and Nash (1991) propose that writing to learn researchers need to look to the field of cognitive psychology to find a model for assessing the change in knowledge structures that true learning tasks are believed to effect.

While questions abound about the reliability and validity of the methodology employed in these empirical studies, writing to learn supporters have not stopped making their own claims---unempirical and statistically unreliable though they might be---about the value of writing to learn activities. The consumer of research must decide whether there is less worth in a self-proclaimed unempirical evaluation of a writing task's effectiveness than there is in an empirical study of questionable methodology and ambiguous results. If the consumer believes in the infallibility of

empirical studies and the fallibility of all else, then there might be little left in this paper worth noting. However, if the consumer is of a more qualitative bent who picks and chooses information from journal articles with the idea that some of it might be applicable to his/her own teaching situation, then continuing through this paper might prove fruitful.

Without the benefit of hard core data to back their claims, most journal articles espousing writing to learn activities appeal to the reader's/consumer's ideas about learning theory and intuition about what seems to make sense. Janet Emig's (1977) assertion that writing can promote learning is based, not on empirical data, but on the claim that many of the activities involved in composing are the same kinds of activities that learning theorists say reinforce learning. Her claims, along with those of Langer and Applebee (1987), that writing promotes or reinforces learning are based on the following assertions: Learning profits from multirepresentational and integrative feedback which writing provides because it involves the eye, hand, and both hemispheres of the brain; successful learning strategies make connections among different concepts and ideas which writing does by establishing explicit systematic and conceptual groupings through lexical, syntactical, and rhetorical devices; learning is more probable when the learner receives feedback about his/her learning which writing provides since it is a permanent graphic representation of one's thoughts which can be modified or revised over an extended period; and learning is more likely when the learner is actively engaged in the learning task, which writing almost guarantees since it is hard to imagine someone passive while composing a text.

While few may doubt Emig or Langer and Applebee' s assertions, it is important

to approach all claims with an initial skepticism. Though I do not doubt their statement that writing requires the writer to be more active than passive, I do not subscribe to a almost similar belief by Sorensen (1991) and Self (cited in Mitchell, 1989) that one can't write about a subject without thinking about the subject. I say this because I've read some pretty thoughtless student papers that were produced in class while the students seemed to be actively involved in the task. I make this point only to reinforce my belief that the consumer of information related to writing to learn tasks need not subscribe to everything he/she reads.

Writing assignments that can promote learning are probably as abundant as the kinds of learning that are possible in a classroom. Many reports concur that effective writing to learn assignments are those which the instructor designs to match particular learning objectives in the class (Langer & Applebee, 1987; Penrose, 1987; Gray, 1988; Reese & Zielonka, 1989; Soven, 1989; Weber, 1990). While learning logs, freewriting, journal writing, reader response journals, and peer review groups are some of the most frequently mentioned tools utilized in writing to learn activities, it becomes obvious that almost any writing activity, when designed with an eye towards the kinds of thought processes it might evoke, can promote learning, from notetaking and summary writing to essay tests and process papers. The teacher becomes the critical factor here. Writing assignments must not be thoughtlessly and arbitrarily assigned with the expectation that learning, somewhat miraculously or mysteriously, will occur. Teachers give assignments with predetermined pedagogical purposes that meet short or long term learning objectives for the class.

While it would be impossible for me to catalogue the myriad learning objectives

and writing activities that they might engender for all possible courses in a WAC program, it might not be a bad idea here to mention Benjamin Bloom's (1956) Taxonomy of Educational Objectives. Bloom theorized that all learning objectives in a classroom fall into one of six heirarchical cognitive domains, with knowledge/factual recall at the lowest level, progressing up to comprehension, application, analysis, synthesis, and evaluation at the highest level. Setting a learning objective at one level presumes a mastery of the cognitive processes at all levels below it; that is, setting a learning objective, for example, that requires analysis of an idea presupposes that the students already can demonstrate knowledge and comprehension of the idea and the ability to apply the idea in a setting other than the one in which it was originally learned.

While writing activities can be designed to meet the objectives at all levels of Bloom's Taxonomy, writing seems to be particularly well-suited to meet objectives at the higher levels (Penrose, 1987) such as analysis, synthesis, and evaluation; that is, the ones that require critical thinking. The alarm raised by Applebee's 1981 report wasn't over the amount of writing occurring in secondary classrooms; it was the fact that almost all of it was devoted to meeting objectives at the knowledge level, the lowest on Bloom's taxonomy. The nature of writing tasks reflected the general nature of learning going on in American classrooms, where memorization of facts and student passivity dominate the curriculum. Goodlad (1984), in his visits to over 1,000 American high school classrooms found that less than 1% of all instructional time in those classrooms was devoted to activities involving reasoning and student opinions.

Many of the writing tasks that appear in the writing to learn literature are

designed to tap into the higher cognitive domains of Bloom's Taxonomy, the ones that require reasoning from the writer. Others seem better suited to heed Britton's (1970) suggestion that students need to write more personal and expressive pieces---the opinions missing from the classrooms Goodlad visited---since, according to his theory (cited in Russell, 1991), writing ability develops naturally by moving from personal forms to the more informational and transactional. Expressive writing also has the potential to promote more reflective and associative thinking from students. Other writing to learn tasks seem designed to make students more active learners while those of a more metacognitve design, concentrate on making students more self-conscious learners. Before I begin my review of some of these writing to learn assignments featured in the literature, it should be noted that the learning objectives behind the tasks that I just mentioned are not mutually exclusive. It's not uncommon to encounter an assignment, when properly designed and presented, that requires personal writing, actively engages the writer, promotes higher order thinking, and makes the writer more aware of his/her own learning.

Since much of the material to be learned in content courses comes from books, writing tasks that demand interaction with a reading text would seem easily applied in any classroom. Interactive reading journals require students to open up lines of inquiry with the text they're reading and catalogue their queries and musings about the text in writing. Gahn (1989) asserts that writing that requires students to refer back to the text they're reading promotes more active reading. Coker and Scarboro (1990) report that reading journals promote more active reading styles among the students in their upper-division sociology courses. Reese and Zielonka (1989) point to SQ3R

(Survey, Question, Read, Respond, Review) and KWL (What I Know, What I Want to Know, What I Learned) as reading/writing strategies that lead students to read with a purpose and verbalize how reading aids their learning. Newton (1991) describes the metacognitive merits of reader response journals. She cites Kirby, Nist, and Simpson's assertion that "responding to a series of questions about their struggle to understand a challenging literary text helps [students] develop and assess their own learning strategies" (p. 477). Her assertion that "journal writers become increasingly more comfortable as critics of their own learning processes" (p. 478), calls to mind Irmscher's (1979) contention that the "ideal audience" for a writer is "an 'I' addressing its 'me' (Mead, cited in Irmscher, 1979, p. 134). Could it be that an elevated awareness of oneself as a writer or as a learner breeds an elevated sense of control over one's writing or learning processes?

This idea that students who are more self-conscious about their learning are more effective in their learning is also the motivation behind using learning logs in content courses. Learning logs are like reading journals that invite discourse from all learning situations, not just reading tasks. Different teachers use them for different purposes. Crowhurst (1989) talks about how learning logs make students more actively inquiring about course content, even that which they don't understand. "Articulating a problem," she points out, "is the first step towards solving it" (p. 8). Coker and Scarboro (1990) point out how learning logs help increase students' responsibility for learning, one of their "primary teaching goals" (p. 221). Pradl and Mayher (1985) show how students can use learning logs to connect their personal experiences with learning tasks and also to evaluate their own understanding of new

material presented in the course. Latta (1991) reports how in-process journals, another sort of learning log, require students to articulate and defend the decisions they make in their composing. In analyzing and evaluating their choices---two of Bloom's higher order cognitive processes--- they come to see their composing actions as deliberate, a sign of active learning.

The peer review activities in an anthropology course described by Herrington and Cadman (1991) seem to foster the same kind of learning aims as those mentioned by Latta. Students, after submitting their compositions to classmates for review, must articulate why they choose to accept or reject their peers' suggestions. This involves students in a dialogue that is active, analytic, and evaluative. Schumacher and Nash (1991, p. 77) suggest that "writing which shows high levels of dialogic character" might lead to the kind of learning that results in shifts in existing knowledge structures.

Some studies suggest that writing tasks that ask students to write as a practitioner of the discipline he or she is studying promote learning in and of themselves. Working on projects unique to a discipline is a way to foster learning in that content area. Bartholomae and Petrosky (cited in Comley, 1989, p. 199) state, "There is also a way of learning psychology by learning to write like a psychologist--- by learning, that is, to assemble materials, study them, and speak of them within the terms and structures of that discipline." Gray (1988) suggests that the best writing to learn activities in a content course such as history are those that ask, "What does it mean to learn history?" not those that ask students to simply organize what they already know about a particular event. In writing as practitioners, he says, "students learn to be self-conscious about the habits of thought and argument of a discipline"

(p. 731).

Composing formal texts whose form and rhetoric are specific to a discipline might seem a surprising writing-to-learn task considering that most such tasks are purposefully informal. It might seem that the thinking processes that arise from the writing process, not those evoked from crafting a final product, are more esteemed as writing to learn activities. After all, the tasks most commonly associated with writing to learn are freewriting, journal writing, learning logs, and reader responses, all of which encourage students to engage in an informal, personal, exploratory, and open-ended form of inquiry with themselves and their learning tasks. The thoughts that writing evokes seem to be valued more than the vehicle---i. e. the kind of writing---that carries the thought. Nevertheless, one cannot categorically reject a formal writing task as inappropriate as a learning activity just because it is more formal. Surely, informal tasks have the advantage of easy implementation; by their very nature they can be utilized at least daily in a classroom while formal assignments cannot. There is, however, a place for formal, product-oriented writing in the content class devoted to writing to learn activities. Such formal tasks are not ignored in the literature.

Hill (1991) asserts that summary writing demands more than simple recall skills from students; differentiating between major points and supporting details in a text and then combining the condensed material into a new form force the student to analyze, evaluate, and synthesize the material he or she reads. Summary writing also promotes reading comprehension, a claim further supported by Lehr (cited in Gahn, 1989, p. 527), who says, "Research shows that paraphrase writing enhances reading skills."

Some journal articles even tout the essay test, that oft maligned writing instrument with a history of being utilized almost exclusively to measure learning that already occurred, as a tool to promote new learning. It's important to remember that writing tasks can be designed to meet almost any learning objective, and almost all articles on this topic stress the importance of instructors informing students about the kinds of thinking and writing they'll be expected to do to succeed on essay tests (Jenkinson, 1988; Soven, 1989; and Benson, 1991). They suggest that the essay works best as a writing to learn activity when teachers show students models of good essays, initiate discussions in class that parallel the kinds of questions students might have to answer on the essay tests, provide them with class time to take practice essay tests before the actual test date, and allow answers to be in a variety of discourses which might include dialogues, interviews, or fictionalized accounts.

Soven (1989), in her study of the essay as a writing to learn task, does not accept Brannon and Knoblauch's assertion (cited in Soven, 1989, p. 3) that "teaching students academic genres is to teach them generic constraints." Rather, she finds that if presented correctly by the instructor, the essay can encourage students to make the kind of personal connections to the assignment so characteristic of informal and exploratory writing tasks. She says, "The task, in and of itself, can provide compelling motivation to learn" (p. 15). Jenkinson (1988, p. 726) points to the words most commonly used with essay assignments---"explain, compare, analyze, classify, contrast, describe, discuss, justify, and summarize"---as proof of the kinds of higher level thinking skills they engender. Benson (1991) assigns tests with four different essay types on them, each one promoting different kinds of thinking. Factual essays

require recall and organization skills; document-based essays ask students to analyze and synthesize information; creative essays ask them to apply and synthesize information; and evaluative essays call on students' critical and evaluative faculties.

Designing an effective essay test, like designing any effective writing to learn activity, demands forethought from the instructor. It is the learning objective of the teacher that determines the kind of writing the students will do. A teacher who wants students to write essays that require the recall of a lot of factual information can have that as readily as another teacher can have his or her students write an essay that requires the analysis of several different scenarios. It's all in the planning. Writing is a dynamic and powerful enough learning tool to lend itself to simple tasks like listing as well as complex tasks like synthesizing. It all depends on what teachers want out of their students. And it also depends on time. Instructional time.

Writing Across the Curriculum advocates who claim that incorporating more writing in the content area classrooms can be achieved without dramatic changes in the ways those courses are taught might be a bit exaggerated. Gere (cited in Hightshue, Ryan, McKenna, Tower, & Brumley, 1988, p. 725) asserts that "writing to learn strategies . . . are not intended to change the substance of courses in any discipline. Rather, they are to be incorporated into existing courses as a way of enhancing learning." Sure, writing activities are only meant to enhance content area learning, not change the nature of the courses, but what happens when the writing tasks best suited for learning in a particlular course are foreign to most of the students in that class? Cunningham and Cunningham (cited in Gahn, 1989) found that secondary teachers <u>expect</u> students to read and to write about what they have read,

so quite often, students perform content writing tasks, even though they have never been taught how to. Hill (1991) makes a similar claim about summary writing. If teachers want writing to learn tasks to have value for their students, obviously the tasks need to be taught. The need to teach students how to perform writing to learn tasks is mentioned frequently in the literature (Kirkpatrick & Pittendrigh, 1986; Jenkinson, 1988; Penrose, 1989; Soven, 1989; Benson, 1991; Hill, 1991; Sorenson, 1991), and even where it is not explicitly stated, one can assume that students need to be taught that which is new to them.

Such instruction often requires more than just time. Many articles talk about the changes in classroom activities in writing to learn courses, usually involving an increase in the use of class discussion, guided inquiry techniques, and cooperative learning strategies (Kirkpatrick & Pittendrigh, 1986; Soven, 1989; Coker & Scarboro, 1990). Russell (1991, p.295) claims that writing to learn "asks for a fundamental commitment to a radically different way of teaching ," yet he is pessimistic about the likelihood of any radical change in American schooling. He says:

> Teachers operating within [the actual American education system] lack the time and the training necessary to integrate meaningfully process-oriented writing into their instruction (p. 281). . . . Even faculty who recognize the importance of writing for improving learning may not have the time to restructure their courses and pedagogies to incorporate writing more effectively, for faculty must work within institutional and disciplinary contexts that embody competing values. (p. 295)

What does all this say about American education? At the college level, Russell

implies that providing undergraduates with thought-provoking instruction is probably less a priority for university professors than teaching graduate seminars and engaging in research. That does not bode well for those writing to learn advocates espousing a revolution in pedagogy at the college level. At the secondary level the institutional constraints that Russell mentions are probably no different from those on any other valuable learning strategy; that is, the strategy would probably work best with smaller classes and a well-trained faculty, both of which cost money, the death kiss for many good ideas in education. Pradl and Mayher (1985, p. 8) exhort schools "to spend the time and money necessary to change from the passive transmission of material to an active construction of the meaning of a subject's content by each student," but I don't sense any impending educational revolution in these lean, budget-cutting years.

All, however, is not bleak. Just because there are institutional and budgetary constraints to implementing writing-to-learn activities across the entire curriculum, there's nothing stopping individual teachers from utilizing them in individual classrooms. Just because teachers can't utilize writing to learn strategies in perfect instructional settings doesn't mean they shouldn't use them at all. Many strategies do promote learning, even in many of the less than perfect settings where we do our teaching. In the same way that we do not starve ourselves to death everytime there is no surf-and-turf on our dinner tables, we shouldn't deny our students the intellectual nourishment that comes from well designed writing to learn activities just because our teaching situations might be less than ideal.

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